

**STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. P-105588
PLACE ID 23400, LTF 35294**

1.0 AUTHORIZATION

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2 and 3, Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2, A.A.C. Title 18, Chapter 11, Article 4 and amendments thereto, and the conditions set forth in this permit, BySynergy, LLC is hereby authorized to operate the Bella Terra Wastewater Reclamation Facility (WRF) located on Upper Red Rock Loop Road, in Sedona, Yavapai County, Arizona, over groundwater of the Verde Basin in Township 17 N, Range 5 E, Section 26, NW ¼, SW ¼, NW ¼, of the Gila and Salt River Base Line and Meridian.

This permit becomes effective on the date of the Water Quality Division Director's signature and shall be valid for the life of the facility (operational, closure, and post-closure periods) unless suspended or revoked pursuant to A.A.C. R18-9-A213. The permittee shall construct, operate and maintain the permitted facilities:

1. Following all the conditions of this permit including the design and operational information documented or referenced below, and
2. Such that Aquifer Water Quality Standards (AWQS) are not violated at the applicable point(s) of compliance (POC) set forth below or if an AWQS for a pollutant has been exceeded in an aquifer at the time of permit issuance, that no additional degradation of the aquifer relative to that pollutant and as determined at the applicable POC occurs as a result of the discharge from the facility.

1.1 PERMITTEE INFORMATION

Facility Name:	Bella Terra Wastewater Reclamation Facility
Facility Address:	Bella Terra WRF Red Rock Loop Road Sedona, AZ 86336
Permittee:	Michael A. Zito
Permittee Address:	BySynergy L.L.C. 15 Cultural Park Place, Suite # 2 Sedona, AZ 86336
Facility Contact:	Dwight Zemp, Vice President, Santec Corporation
Emergency Phone No.:	(303) 660-9211, Ext. 11
Latitude/Longitude:	34E49' 39" N / 111E48' 44" W
Legal Description:	Township 17N, Range 5E, Section 26, NW ¼, SW ¼, NW ¼

1.2 AUTHORIZING SIGNATURE

Joan Card, Director
Water Quality Division
Arizona Department of Environmental Quality

Signed this ____ day of _____, 2007

2.0 SPECIFIC CONDITIONS [A.R.S. §§ 49-203(4), 49-241(A)]**2.1 Facility / Site Description [A.R.S. § 49-243(K)(8)]**

The permittee is authorized to operate the Bella Terra Wastewater Reclamation Facility (WRF) with a maximum average monthly flow of 0.02491 million gallons per day (24,910 gallons per day (gpd)). The WRF consists of a flow equalization basin, an aeration basin, an anoxic basin, a reaeration and clarifier basin, a sludge holding tank, a sand filter, chemical feed capability for coagulating agents, and an ultraviolet (UV) disinfection system. The effluent shall be disposed using a low-pressure subsurface disposal system and also may be used for beneficial purposes in accordance with any future valid reclaimed water permits. All sludge including screenings, grit and scum, shall be hauled off-site for disposal in accordance with State and Federal regulations.

The WRF shall produce reclaimed water meeting Class A+ Reclaimed Water Quality Standards. The effluent may be reused for any allowable use in that class under any future valid reclaimed water permit (18 A.A.C. R18-9, Article 7) or discharged to the subsurface disposal system in accordance with the limits specified in this permit.

The site includes the following permitted discharging facilities:

Facility	Latitude	Longitude
Bella Terra WRF	34° 49' 39" N	111° 48' 44" W
Effluent Disposal Field #1	34° 49' 40.4" N	111° 48' 40.3" W
Effluent Disposal Field #3	34°49'38.6" N	111°48'50.5" W
Effluent Disposal Field #4	34°49'36.0" N	111°48'53.9" W

Three aquifers have been identified in the area with groundwater, in all aquifers generally flowing southwest, towards the Verde River. Groundwater within the Alluvial Aquifer associated with Oak Creek is generally less than 20 feet. Groundwater in the Supai Aquifer is reported to be first encountered at depths of about 150 feet below the ground surface (bgs) with the potentiometric surface found at depths of about 70 to 85 feet bgs. Depth to groundwater in the Redwall Aquifer is reported to be between 300 and 400 feet bgs.

Annual Registration Fee [A.R.S. § 49-242]

The Annual Registration Fee for this permit is established by A.R.S. §49-242(E) and is payable to ADEQ each year. The design flow is 24,910 gallons per day (gpd).

Financial Capability [A.R.S. § 49-243(N) and A.A.C. R18-9-A203]

The permittee has demonstrated financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The permittee shall maintain financial capability throughout the life of the facility. The estimated dollar amount demonstrated for financial capability is \$31,458.00 for closure costs and \$35,000.00 for operation and maintenance costs. The financial capability was demonstrated through A.A.C. R18-9-A203.C.3.

In accordance with Section 3.0, the permittee shall submit a financial assurance mechanism to increase the financial capability demonstration by \$600,000.00.

2.2 Best Available Demonstrated Control Technology [A.R.S. § 49-243(B) and A.A.C. R18-9-A202(A)(5)]

The WRF shall be designed, constructed, operated, and maintained to meet the treatment performance criteria for new facilities as specified in Arizona Administrative Code R18-9-B204. The facility shall meet the requirements for pretreatment by conducting monitoring as per R18-9-B204(B)(6)(b)(iii).

All industrial hookups and other non-residential hookups to the treatment system shall be authorized according to the applicable federal, state or local regulations.

2.2.1 Engineering Design

The WRF was designed as per the design report prepared, stamped, dated and signed by Evan H. Curtis, P.E. (Professional Engineer), Santec Corporation, Inc. dated January 26, 2005, and subsequent sealed submittals that served as additional amendments to the design report.

Equalization Basin

Flow equalization basin is for an in-line equalization unit. Due to the estimated variations in the influent flow rate an in-line unit will provide for appropriate flow distribution over a 24-hour period.

Aeration/Anoxic Basin

Sewage is pumped to the aeration basin from the flow equalization basin. The outlet from the aeration basin is through a gravity overflow pipe to the denitrification chamber. The outlet from the denitrification basin passes flow to the reaeration basin. The total freeboard of the aeration basin shall be a minimum of 2-foot 6-inches. The supernatant is pumped from the sludge holding tank to the aeration basin.

Secondary Clarifier

The cylindrical design of the vessel provides smooth transitions from wall to floor to prevent the formation of dead-zones where solids can accumulate in the basin. A longitudinal fiberglass reinforce plastic baffle shall maintain separation between reaeration and secondary clarification.

Chemical Feed

The coagulant metering pump provides a capacity of at least 1.5 times the design feed rate and is rated good or better for chemical resistance and corrosion to the coagulant solution. The coagulating agent can be added to meet the Reclaimed Water Class A+ turbidity standards.

Filtration System

The filtration system consists of a lift station, feed control system, and tertiary filter. The tertiary filter is of a moving bed design that provides continuous operation without the need for a backwash cycle. Influent enters through the center of the filter through a central feed chamber and flows through the deep media bed before exiting the filter. The sand bed is a minimum of 7 feet in height and provides a filtrate quality of less than 10 mg/L suspended solids.

Disinfection System

The Ultraviolet (UV) disinfection system is of closed channel, stainless steel construction providing a dosage of approximately 86,000 micro-Watt-seconds per square centimeter ($\mu\text{ws}/\text{cm}^2$). The UV system will be duplex units providing full redundancy (1 unit duty, 1 unit standby) with automatic switchover if UV transmittance falls below 65%.

Sub-surface Irrigation Disposal System

The subsurface drip disposal system consists of three effluent disposal fields; Field 1, Field 3, and Field 4. The drip tubing is buried approximately one foot below the land surface. The application rate to the disposal fields is limited by Section 4.0, Table IA, to 0.219 gpd/sf.

2.2.2 Site-specific Characteristics

Site specific characteristics were evaluated to determine BADCT for the WRF and effluent disposal fields. The facility is located in an area of karst topography, shallow bedrock, and a hydrologically sensitive surface water - Oak Creek.

Pathogen removal is set at "non-detect" in Section 4, Table IA as required by A.A.C. R18-9-B204(B)(4) because the facility is located in an area of karstic topography and potentially shallow seasonally high groundwater. The BADCT demonstration does not depend on further treatment of pathogens in the site soils.

2.2.3 Pre-Operational Requirements

The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that the facility is constructed according to the Department-approved design report or plans and specifications, as applicable. This certificate shall be submitted prior to discharge and within 90 days of completion of construction.

2.2.4 Operational Requirements

1. The permittee shall maintain a copy of the up-to-date O & M manual at the WRF site at all times and shall be available upon request during inspections by ADEQ personnel.
2. The pollution control structures shall be inspected for the items listed in Section 4.0, Table III - FACILITY INSPECTION (OPERATIONAL MONITORING).
3. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and material(s) used shall be documented on the Self-Monitoring Report Form submitted quarterly to the ADEQ Water Quality Compliance Section.

2.2.5 Wastewater Treatment Plant Classification

A.A.C. R18-9-703(C)(2)(a), A.A.C. R18-11-303 THROUGH 307]

The WRF will produce reclaimed water meeting Class A+ Reclaimed Water Quality Standards (A.A.C. R18-11, Article 3) and can be used for any allowable use in that class in accordance with any future valid reclaimed water permits (A.A.C. R18-9, Article 7).

2.3 Discharge Limitations [A.R.S. §§ 49-201(14), 49-243 and A.A.C. R18-9-A205(B)]

1. The permittee is authorized to operate the WRF with a maximum average monthly flow of 24,910 gpd.

2. The permittee shall notify all users that the materials authorized to be disposed through the WRF are typical household sewage and shall not include motor oil, gasoline, paints, varnishes, hazardous wastes, solvents, pesticides, fertilizers or other materials not generally associated with toilet flushing, food preparation, laundry facilities and personal hygiene.
3. The permittee shall operate and maintain all permitted facilities to prevent unauthorized discharges pursuant to A.R.S. § 49-201(12) resulting from failure or bypassing of BADCT pollutant control technologies including liner failure¹, uncontrollable leakage, overtopping (e.g., exceeding the maximum storage capacity, defined as a fluid level exceeding the crest elevation of a permitted impoundment), of basins, lagoons, impoundments or sludge drying beds, berm breaches, accidental spills, or other unauthorized discharges.
4. A discharge from this facility shall not cause or contribute to a violation of water quality standards established for a navigable water of the state pursuant to A.A.C. R18-11-405(B).
5. Specific discharge limitations are listed in Section 4.0, Tables IA and IB.

2.4 Points of Compliance (POCs) [A.R.S. § 49-244]

The Points of Compliance are established by the following designated locations:

POC #	Descriptive Location	Latitude	Longitude
1	Conceptual location for the shallow alluvium, located ~10 feet southeast of Effluent Disposal Field #1.	34° 49' 39.2" N	111° 48' 38.4" W
2	Conceptual location for regional aquifer, located ~10 feet southwest of Effluent Disposal Field #1	34° 49' 40.2" N	111° 48' 42.2" W
3	Conceptual location for regional aquifer, located ~10 feet southwest of Effluent Disposal Field #4	34° 49' 35.7" N	111° 48' 55.1" W

Groundwater monitoring is not required at any point of compliance, except as a contingency action. However, monitoring will be conducted at the Sentinel Well as described in Section 3.0, Compliance Schedule.

The Director may amend this permit to require installation of wells and initiation of groundwater monitoring at the POCs or to designate additional points of compliance if information on groundwater gradients, groundwater usage or groundwater quality indicates the need.

2.5 Monitoring Requirements [A.R.S. § 49-243(K)(1), A.A.C. R18-9-A206(A)]

All monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. All sampling, preservation and holding times shall be in accordance with currently accepted standards of professional practice. Trip blanks, equipment blanks and duplicate samples shall also be obtained, and chain of custody procedures shall be followed, in accordance with currently accepted standards of professional practice. The permittee shall consult the most recent version of the ADEQ Quality Assurance Project Plan (QAPP) and EPA 40 CFR PART 136 for guidance in this regard. Copies of laboratory analyses and chain of custody forms shall be maintained at the permitted facility. Upon request these documents shall be made immediately available for review by ADEQ personnel.

¹Liner failure in a single-lined impoundment is any condition that would result in leakage exceeding 550 gallons per day per acre.

2.5.1 Discharge Monitoring

The permittee shall monitor the wastewater according to Section 4.0, Tables IA and IB. A representative sample of the wastewater shall be collected at the point of discharge from the ultraviolet disinfection unit.

2.5.2 Facility / Operational Monitoring

Operational monitoring inspections shall be conducted according to Section 4.0, Table III.

- a. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and materials used shall be documented on the Self-Monitoring Report Form (SMRF) submitted quarterly to the ADEQ Water Quality Compliance Section. If none of the conditions occur, the report shall say "no event" for a particular reporting period. If the facility is not in operation, the permittee shall indicate this on the SMRF.
- b. The permittee shall submit data required in Section 4.0, Table III regardless of the operating status of the facility unless otherwise approved by the Department or allowed in this permit.

2.5.3 Groundwater Monitoring and Sampling Protocols

The permittee shall monitor groundwater according to Section 4.0, Table II.

Static water levels shall be measured and recorded prior to sampling. Wells shall be purged of at least three borehole volumes (as calculated using the static water level) or until field parameters (pH, temperature, conductivity) are stable, whichever represents the greater volume. If evacuation results in the well going dry, the well shall be allowed to recover to 80% of the original borehole volume, or for 24 hours, whichever is shorter, prior to sampling. If after 24 hours there is not sufficient water for sampling, the well shall be recorded as "dry" for the monitoring event. An explanation for reduced pumping volumes, a record of the volume pumped, and modified sampling procedures shall be reported and submitted with the Self-Monitoring Report Form (SMRF).

2.5.4 Surface Water Monitoring and Sampling Protocols

Routine surface water monitoring is not required under the terms of this permit. The Director may amend this permit to require surface water monitoring if new information indicates the need.

2.5.5 Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state approved methods. If no state approved method exists, then any appropriate EPA approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory limits of the parameters specified in this permit. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of Arizona State certified laboratories can be obtained at the address below:

Arizona Department of Health Services
Office of Laboratory Licensure and Certification
250 North 17th Ave.
Phoenix, AZ 85007
Phone: (602) 364-0720

2.5.6 Installation and Maintenance of Monitoring Equipment

Monitoring equipment required by this permit shall be installed and maintained so that representative samples required by the permit can be collected. If new groundwater wells are determined to be necessary, the construction details shall be submitted to the ADEQ Groundwater Section for approval prior to installation and the permit shall be amended to include any new monitor wells.

2.6 Contingency Plan Requirements [A.R.S. § 49-243(K)(3), (K)(7) and A.A.C. R18-9-A204 and R18-9-A205]

2.6.1 General Contingency Plan Requirements

At least one copy of the approved contingency and emergency response plan(s) submitted in the application shall be maintained at the location where day-to-day decisions regarding the operation of the facility are made. The permittee shall be aware of and follow the contingency and emergency plans.

An alert level (AL) exceedance, violation of a DL, aquifer quality limit (AQL), or other permit condition shall be reported to ADEQ following the reporting requirements in Section 2.7.3.

Some contingency actions involve verification sampling. Verification sampling shall consist of the first follow-up sample collected from a location that previously indicated a violation or the exceedance of an AL. Collection and analysis of the verification sample shall use the same protocols and test methods to analyze for the pollutant or pollutants that exceeded an AL or violated an AQL. The permittee is subject to enforcement action for the failure to comply with any contingency actions in this permit. Where verification sampling is specified in this permit, it is the option of the permittee to perform such sampling. If verification sampling is not conducted within the timeframe allotted, ADEQ and the permittee shall presume the initial sampling result to be confirmed as if verification sampling has been conducted. The permittee is responsible for compliance with contingency plans relating to the exceedance of an AL or violation of a DL, AQL, or any other permit condition.

2.6.2 Exceeding of Alert Levels/Performance Levels

2.6.2.1 Exceeding of Performance Levels (PL) Set for Operational Conditions

1. If the operational PL set in Section 4.0, Table III has been exceeded the permittee shall:
 - a. Notify the ADEQ Water Quality Compliance Section within five (5) days of becoming aware of an exceedance of any permit condition in Table III.
 - b. Submit a written report within thirty (30) days after becoming aware of an exceedance of a permit condition. The report shall document all of the following:
 - (1) A description of the exceedance and its cause;
 - (2) The period of the exceedance, including exact date(s) and time(s), if known, and the anticipated time period during which the exceedance is expected to continue;
 - (3) Any action taken or planned to mitigate the effects of the exceedance or the spill, or to eliminate or prevent recurrence of the exceedance;

- (4) Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an Aquifer Water Quality Standard; and
 - (5) Any malfunction or failure of pollution control devices or other equipment or process.
2. The facility is no longer on alert status once the operational indicator no longer indicates that a PL is being exceeded. The permittee shall, however, complete all tasks necessary to return the facility to its pre-alert operating condition.

2.6.2.2 Exceeding of Alert Levels Set for Discharge Monitoring

1. If an AL set in Section 4.0, TABLE IA has been exceeded, the permittee shall immediately investigate to determine the cause of the exceedance. The investigation shall include the following:
 - a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the exceedance.
 - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences;
 - c. Pretreatment source control for industrial pollutants.
2. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 5.0 and specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation which may have led to an AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6.
3. Within thirty (30) days after confirmation of an AL exceedance, the permittee shall submit the laboratory results to the ADEQ Water Quality Compliance Section, Enforcement Unit, along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem.
4. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.2.2.1. Exceeding Permit Flow Limit

1. If the AL for average monthly flow in Section 4.0, Table IA is exceeded, the permittee shall submit an application for an APP amendment to expand the WRF or submit a report detailing the reasons that an expansion is not necessary.
2. Acceptance of the report instead of an application for expansion requires ADEQ approval.

2.6.2.3 Exceeding of Alert Levels in Groundwater Monitoring

2.6.2.3.1 Alert Levels for Indicator Parameters

Not required at time of permit issuance.

2.6.2.3.2 Alert Levels for Pollutants with Numeric Aquifer Water Quality Standards

1. If an AL for a pollutant set in Section 4.0, Table II has been exceeded, the permittee may conduct verification sampling within five (5) days of becoming aware of the exceedance. The permittee may use results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If verification sampling confirms the AL exceedance or if the permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring to 'Daily', 'Weekly', and 'Monthly' for constituents that have a permit monitoring frequency of 'Weekly', 'Monthly', and 'Quarterly', 'Semi-Annual', or 'Annual' respectively. In addition, the permittee shall immediately initiate an investigation of the cause of the AL exceedance, including inspection of all discharging units and all related pollution control devices, review of any operational and maintenance practices that might have resulted in an unexpected discharge, and hydrologic review of groundwater conditions including upgradient water quality.
3. The permittee shall initiate actions identified in the approved contingency plan referenced in Part 5.0 and specific contingency measures identified in Part 2.6 to resolve any problems identified by the investigation which may have led to an AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6. Alternatively, the permittee may submit a technical demonstration, subject to written approval by the Groundwater Section, that although an AL is exceeded, pollutants are not reasonably expected to cause a violation of an AQL. The demonstration may propose a revised AL or monitoring frequency for approval in writing by the Groundwater Section.
4. Within thirty (30) days after confirmation of an AL exceedance, the permittee shall submit the laboratory results to the Water Quality Compliance Section, Data Unit along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem.
5. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.
6. The increased monitoring required as a result of an AL exceedance may be reduced to the monitoring frequency in Section 4.0, Table II if the results of four sequential sampling events demonstrate that no parameters exceed the AL.

2.6.2.3.3 Alert Levels for Nitrogen in the Sentinel Well

1. If an AL for nitrogen set in Section 4.0, Table II has been exceeded, the permittee may conduct verification sampling within five (5) days of becoming aware of the exceedance. The permittee may use results

of another sample taken between the date of the last sampling event and the date of receiving the result as verification.

2. If verification sampling confirms the AL exceedance or if the permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring to Weekly from Monthly. In addition, the permittee shall immediately cease discharge to Disposal Field 1 and initiate an investigation of the cause of the AL exceedance, including inspection of all discharging units and all related pollution control devices, review of any operational and maintenance practices that might have resulted in an unexpected discharge, and hydrologic review of groundwater conditions including upgradient water quality.
3. The permittee shall initiate actions identified in the approved contingency plan referenced in Part 5.0 and specific contingency measures identified in Part 2.6 to resolve any problems identified by the investigation which may have led to an AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6. Alternatively, the permittee may submit a technical demonstration, subject to written approval by the Groundwater Section, that although an AL is exceeded, pollutants are not reasonably expected to cause a violation of an surface water quality standard (SWQS). The demonstration may propose a revised AL or resumption of discharge to Disposal Field 1. No action is authorized under this section until approved in writing by the Groundwater Section.
4. Within thirty (30) days after confirmation of an AL exceedance, the permittee shall submit the laboratory results to the Water Quality Compliance Section, Data Unit along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem.
5. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.
6. The increased monitoring required as a result of an AL exceedance may be reduced to the monitoring frequency in Section 4.0, Table II if the results of four sequential sampling events demonstrate that no parameters exceed the AL.

2.6.3 Discharge Limitations (DL) Violations

1. If a DL set in Section 4.0, Tables IA and 1B have been violated, the permittee shall immediately investigate to determine the cause of the violation. The investigation shall include the following:
 - a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the violation;
 - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences;

- c. Sampling of individual waste streams composing the wastewater for the parameters in violation.

The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. The permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

2. The permittee shall comply with the freeboard requirements as specified in Section 4.0, Table III (Facility Inspections) to prevent the overtopping of an impoundment. If an impoundment is overtopped, the permittee shall follow the requirements in Section 2.6.5.3 and the reporting requirements of Section 2.7.3.
3. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, or other actions.

2.6.4 Aquifer Quality Limit (AQL) Violation

1. If an AQL set in Section 4.0, Table II has been exceeded, the permittee may conduct verification sampling within five (5) days of becoming aware of an AQL being exceeded. The permittee may use results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If verification sampling confirms that the AQL is violated for any parameter or if the permittee opts not to perform verification sampling, then, the permittee shall increase the frequency of monitoring to 'Daily', 'Weekly', and 'Monthly' for constituents that have a permit monitoring frequency of 'Weekly', 'Monthly', and 'Quarterly', 'Semi-Annual' or 'Annual' respectively. In addition, the permittee shall immediately initiate an evaluation for the cause of the violation, including inspection of all discharging units and all related pollution control devices, and review of any operational and maintenance practices that might have resulted in unexpected discharge.

The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. A verified exceedance of an AQL will be considered a violation unless the permittee demonstrates within 30 days that the exceedance was not caused or contributed to by pollutants discharged from the facility. Unless the permittee has demonstrated that the exceedance was not caused or contributed to by pollutants discharged from the facility, the permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

3. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.5 Emergency Response and Contingency Requirements for Unauthorized Discharges pursuant to A.R.S. § 49-201(12) and pursuant to A.R.S. § 49-241

2.6.5.1 Duty to Respond

The permittee shall act immediately to correct any condition resulting from a discharge pursuant to A.R.S. § 49-201(12) if that condition could pose an imminent and substantial endangerment to public health or the environment.

2.6.5.2 Discharge of Hazardous Substances or Toxic Pollutants

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of suspected hazardous substances (A.R.S. § 49-201(18)) or toxic pollutants (A.R.S. § 49-243(I)) on the facility site, the permittee shall promptly isolate the area and attempt to identify the discharged material. The permittee shall record information, including name, nature of exposure and follow-up medical treatment, if necessary, on persons who may have been exposed during the incident. The permittee shall notify the ADEQ Northern Regional Office at (928)779-0313 within 24 hours upon discovering the discharge of hazardous material which: a) has the potential to cause an AWQS or AQL exceedance; or b) could pose an endangerment to public health or the environment.

2.6.5.3 Discharge of Non-hazardous Materials

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of non-hazardous materials from the facility, the permittee shall promptly attempt to cease the discharge and isolate the discharged material. Discharged material shall be removed and the site cleaned up as soon as possible. The permittee shall notify the ADEQ Northern Regional Office at (928)779-0313 within 24 hours upon discovering the discharge of non-hazardous material which: a) has the potential to cause an AQL exceedance; or b) could pose an endangerment to public health or the environment.

2.6.5.4 Reporting Requirements

The permittee shall submit a written report for any unauthorized discharges reported under Sections 2.6.5.2 and 2.6.5.3 to the ADEQ Northern Regional Office 1801 W. Route 66, Suite 117, Flagstaff, AZ 86001 within thirty days of the discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, and facility response activities and include all information specified in Section 2.7.3. If a notice is issued by ADEQ subsequent to the discharge notification, any additional information requested in the notice shall also be submitted within the time frame specified in that notice. Upon review of the submitted report, ADEQ may require additional monitoring or corrective actions.

2.6.6 Corrective Actions

Specific contingency measures identified in Part 2.6 have already been approved by ADEQ and do not require written approval to implement.

With the exception of emergency response actions taken under Section 2.6.5, the permittee shall obtain written approval from the Groundwater Section prior to implementing a corrective action to accomplish any of the following goals in response to exceeding an AL or violation of an AQL, DL, or other permit condition:

1. Control of the source of an unauthorized discharge;
2. Soil cleanup;

3. Cleanup of affected surface waters;
4. Cleanup of affected parts of the aquifer;
5. Mitigation to limit the impact of pollutants on existing uses of the aquifer.

Within 30 days of completion of any corrective action, the operator shall submit to the ADEQ Water Quality Compliance Section, a written report describing the causes, impacts, and actions taken to resolve the problem.

2.7 Reporting and Recordkeeping Requirements [A.R.S. § 49-243(K)(2) and A.A.C. R18-9-A206(B) and R18-9-A207]

2.7.1 Self Monitoring Report Forms (SMRF)

1. The permittee shall complete the SMRFs provided by ADEQ, and submit them to the Water Quality Compliance Section, Data Unit.
2. The permittee shall complete the SMRFs to the extent that the information reported may be entered on the form. If no information is required during a quarter, the permittee shall enter "not required" on the SMRF and submit the report to ADEQ. The permittee shall use the format devised by ADEQ.
3. The tables contained in Sections 4.0 list the parameters to be monitored and the frequency for reporting results for compliance monitoring. Monitoring and analytical methods shall be recorded on the SMRFs. The permittee reserves the right to request a relaxation of the monitoring frequency for metals and volatile organic compounds if the data indicate that water quality standards are being achieved.
4. In addition to the SMRFa, the information contained in A.A.C. R18-9-A206(B)(1) shall be included for exceeding an AL or violation of an AQL, DL, or any other permit condition being reported in the current reporting period.

2.7.2 Operation Inspection / Log Book Recordkeeping

A signed copy of this permit shall be maintained at all times at the location where day-to-day decisions regarding the operation of the facility are made. A log book (paper copies, forms or electronic data) of the inspections and measurements required by this permit shall be maintained at the location where day-to-day decisions are made regarding the operation of the facility. The log book shall be retained for ten years from the date of each inspection, and upon request, the permit and the log book shall be made immediately available for review by ADEQ personnel. The information in the log book shall include, but not be limited to, the following information as applicable:

1. Name of inspector;
2. Date and shift inspection was conducted;
3. Condition of applicable facility components;
4. Any damage or malfunction, and the date and time any repairs were performed;
5. Documentation of sampling date and time;
6. Any other information required by this permit to be entered in the log book, and
7. Monitoring records for each measurement shall comply with R18-9-A206(B)(2).

2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Water Quality Compliance Section, Enforcement Unit at (602) 771- 4614 within 24 hours of becoming aware of a violation of any permit condition, discharge limitation or of an Alert Level being exceeded.
2. The permittee shall notify the Water Quality Compliance Section, Enforcement Unit in writing within five days (except as provided in Section 2.6.5) of becoming aware of a violation of any permit condition, discharge limitation or of an Alert Level being exceeded.
3. The permittee shall submit a written report to the Water Quality Compliance Section, Enforcement Unit within 30 days of becoming aware of the violation of any permit condition or discharge limitation. The report shall document all of the following:
 - a. Identification and description of the permit condition for which there has been a violation and a description of its cause.
 - b. The period of violation including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue.
 - c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation.
 - d. Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an Aquifer Water Quality Standard.
 - e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring.
 - f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

2.7.4 Operational, Other or Miscellaneous Reporting

2.7.4.1 Self Monitoring Reports

The permittee shall complete the Self-Monitoring Report Form provided by the Department to reflect facility inspection requirements designated in Section 4.0, Table III and submit to the ADEQ, Water Quality Compliance quarterly along with other reports required by this permit. Facility inspection reports shall be submitted no less frequently than quarterly, regardless of operational status.

2.7.4.2 Reclaimed Water Reporting

The permittee shall submit the results of water quality testing for total nitrogen, fecal coliform, turbidity and flow volumes to any of the following in accordance with A.A.C. R18-9-703(C)(2)(c):

1. Any reclaimed water agent who has contracted for delivery of reclaimed water from the permittee;
2. Any end user who has not waived interest in receiving this information.

2.7.5 Reporting Location

All SMRFs shall be submitted to:

Arizona Department of Environmental Quality
 Water Quality Compliance Section, Data Unit
 Mail Code: 5415B-1
 1110 W. Washington Street
 Phoenix, Arizona 85007
 Phone (602) 771-4681

All reports required by this permit to be submitted to the Water Quality Compliance Section shall be directed to the following address, **and** the applicable regional office:

Arizona Department of Environmental Quality
 Water Quality Compliance Section, Enforcement Unit
 Mail Code: 5415B-1
 1110 W. Washington Street
 Phoenix, Arizona 85007
 Phone (602) 771-4614

Arizona Department of Environmental Quality
 Northern Regional Office
 1801 W. Route 66, Suite 117
 Flagstaff, Arizona 86001
 Phone: (928) 779-0313
 Toll free: (877) 602-3675

All documents required by this permit to be submitted to the Groundwater Section shall be directed to:

Arizona Department of Environmental Quality
 Groundwater Section
 Mail Code: 5415B-3
 1110 W. Washington Street
 Phoenix, Arizona 85007
 Phone (602) 771-4428

2.7.6 Reporting Deadline

The following table lists the quarterly report due dates:

Monitoring conducted during quarter:	Quarterly Report due by:
January-March	April 30
April-June	July 30
July-September	October 30
October-December	January 30

2.7.7 Changes to Facility Information in Section 1.0

The Groundwater Section and Water Quality Compliance Section shall be notified within 10 days of any change of facility information including Facility Name, Permittee Name, Mailing or Street Address, Facility Contact Person or Emergency Telephone Number.

2.8 Temporary Cessation [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A209(A)]

The permittee shall give written notice to the Water Quality Compliance Section before ceasing operation of the facility for a period of 60 days or greater. The permittee shall take the following measures upon temporary cessation:

1. If applicable, direct the wastewater flows from the facility to another state-approved wastewater treatment facility.
2. Correct the problem that caused the temporary cessation of the facility.
3. Notify ADEQ with a monthly facility Status Report describing the activities conducted on the WRF to correct the problem

At the time of notification the permittee shall submit for ADEQ approval a plan for maintenance of discharge control systems and for monitoring during the period of temporary cessation. Immediately following ADEQ's approval, the permittee shall implement the approved plan. If necessary, ADEQ shall amend permit conditions to incorporate conditions to address temporary cessation. During the period of temporary cessation, the permittee shall provide written notice to the Water Quality Compliance Section of the operational status of the facility every three years. If the permittee intends to permanently cease operation of any facility, the permittee shall submit closure notification, as set forth in Section 2.9 below.

2.9 Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9-A209(B)]

For a facility addressed under this permit, the permittee shall give written notice of closure to the Water Quality Compliance Section of the intent to cease operation without resuming activity for which the facility was designed or operated.

2.9.1 Closure Plan

Within 90 days following notification of closure, the permittee shall submit for approval to the Groundwater Section, a Closure Plan which meets the requirements of A.R.S. § 49-252 and A.A.C. R18-9-A209(B)(3).

If the closure plan achieves clean closure immediately, ADEQ shall issue a letter of approval to the permittee. If the closure plan contains a schedule for bringing the facility to a clean closure configuration at a future date, ADEQ may incorporate any part of the schedule as an amendment to this permit.

2.9.2 Closure Completion

Upon completion of closure activities, the permittee shall give written notice to the Groundwater Section indicating that the approved Closure Plan has been implemented fully and providing supporting documentation to demonstrate that clean closure has been achieved (soil sample results, verification sampling results, groundwater data, as applicable). If clean closure has been achieved, ADEQ shall issue a letter of approval to the permittee at that time. If any of the following conditions apply, the permittee shall follow the terms of Post Closure stated in this permit:

1. Clean closure cannot be achieved at the time of closure notification or within one year thereafter under a diligent schedule of closure actions;
2. Further action is necessary to keep the facility in compliance with aquifer water quality standards at the applicable point of compliance;

3. Continued action is required to verify that the closure design has eliminated discharge to the extent intended;
4. Remedial or mitigative measures are necessary to achieve compliance with Title 49, Ch. 2;
5. Further action is necessary to meet property use restrictions.

2.10 Post-Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9 A209(C)]

Post-closure requirements shall be established based on a review of facility closure actions and will be subject to review and approval by the Groundwater Section.

In the event clean closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Groundwater Section a Post-Closure Plan that addresses post-closure maintenance and monitoring actions at the facility. The Post-Closure Plan shall meet all requirements of A.R.S. §§ 49- 201(29) and 49-252 and A.A.C. R18-9-A209(C). Upon approval of the Post-Closure Plan, this permit shall be amended or a new permit shall be issued to incorporate all post-closure controls and monitoring activities of the Post-Closure Plan.

2.10.1 Post-Closure Plan

A specific post closure plan may be required upon the review of the closure plan.

2.10.2 Post-Closure Completion

Not required at the time of permit issuance.

3.0 COMPLIANCE SCHEDULE [A.R.S. § 49-243(K)(5) and A.A.C. R18-9-A208]

For each compliance schedule item listed below, the permittee shall submit the required information, including a cover letter that lists the compliance schedule items, to the Groundwater Section. A copy of the cover letter must also be submitted to the Water Quality Compliance Section, Enforcement Unit.

Description	Due by:
The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that the facility is constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to discharge and within 90 days of completion of construction.
In accordance with AAC R18-9-A203, permittee shall submit a financial assurance mechanism to increase the financial capability demonstration by \$600,000.00.	Within 20 days of permit issuance.
Install a "Sentinel Well" between Effluent Disposal Field 1 and Carroll Canyon Wash, to monitor for the presence and quality of water at the alluvium/bedrock interface. The well must be located within 100 feet of the eastern edge of Effluent Disposal Field 1.	Within 60 days of the issue date of this permit
Submit a Well Installation Report to ADEQ	Within 30 days of well completion
Commence groundwater quality monitoring for the parameters listed in Section 4.0, Table II.	Within 30 days of well completion
Collect twelve monthly samples of groundwater quality data for Nitrogen as listed in Section 4.0, Table II.	Within 400 days of well completion
Submit an Ambient Groundwater Quality Monitoring Report which includes the twelve rounds of monthly ambient monitoring data, an evaluation of the ambient Nitrogen data, a proposal for alert levels for Nitrogen species, and a permit amendment request to establish alert levels for Nitrogen species.	Within 430 days of well completion

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE IA
ROUTINE DISCHARGE MONITORING

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
1	Discharge point from the UV unit			34° 49' 39" N	111° 48' 44" W
Parameter	AL ²	DL ³	Units	Sampling Frequency	Reporting Frequency
Flow to Disposal Field(s): Daily	Monitor ⁴	Monitor	MGD ⁵	Daily ⁶	Quarterly
Flow to Disposal Field: Monthly Average	Monitor	Monitor	MGD	Monthly Calculation	Quarterly
Flow to Reuse: Daily	Monitor	Monitor	MGD	Daily ⁷	Quarterly
Flow to Reuse: Monthly Average	Monitor	Monitor	MGD	Monthly Calculation	Quarterly
Total Flow: Daily ⁸	Monitor	Monitor	MGD	Daily	Quarterly
Total Flow: Average Monthly	0.0236	0.0249	MGD	Monthly ¹²	Quarterly
Application Rate ¹³	0.208	0.219	gpd/sf ¹⁴	Daily ¹⁵	Quarterly
<i>E. coli</i> : Single sample maximum	Monitor	15	CFU or MPN ¹⁶	Daily ¹⁷	Quarterly
<i>E. coli</i> : four (4) of seven (7) samples in a week ¹⁸	Monitor	Non-detect ¹⁹	CFU or MPN	Daily	Quarterly
Total Nitrogen ²⁰ -sampling rolling geometric mean.	7.0	10.0	mg/l	Monthly ²¹	Quarterly

²AL = Alert Level³DL = Discharge Limit⁴Monitor = sample and report as specified.⁵MGD = Million Gallons per Day⁶Flow shall be measured using a continuous recording flow meter which totals the flow daily.⁷Flow shall be measured using a continuous recording flow meter which totals the flow daily.⁸Total flow is the sum of flows to the disposal field (s) and reuse, measured in million gallons per day (MGD).¹²Monthly = Calculated value = Average of total daily flows in a month.¹³Application Rate Value = Calculated value = Flow to Disposal Field: Daily (gpd) divided by the area of the disposal field (sf) where discharge occurred. Disposal Field 1 (34,000 sf), Disposal Field 3 (17,000 sf), Disposal Field 4 (17,000 sf).¹⁴gpd/sf = gallons per day per square foot.¹⁵Daily means each day that effluent is discharged to the disposal field(s).¹⁶CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample. For CFU, a value of <1 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.¹⁷Daily means at least four (4) samples per week.¹⁸Week means a seven-day period starting on Sunday and ending on the following Saturday.¹⁹If at least four (4) of the daily sample are non-detect, report "yes" in the appropriate space on the SMRF (indicating that the standard has been met). If at least (4) of the daily samples have detections of *E. coli*, report "no" in the appropriate space on the SMRF (indicating that the standard has not been met).²⁰Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen.²¹A5-Month Geometric Mean of the results of the 5 most recent samples.

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE IA
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Metals (Total):					
Antimony	0.0048	0.006	mg/l	Semi-Annually	Semi-Annually
Arsenic	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Barium	1.60	2.00	mg/l	Semi-Annually	Semi-Annually
Beryllium	0.0032	0.004	mg/l	Semi-Annually	Semi-Annually
Cadmium	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Chromium	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Cyanide (as free cyanide)	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
Fluoride	3.2	4.0	mg/l	Semi-Annually	Semi-Annually
Lead	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Mercury	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Nickel	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Selenium	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Thallium	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE 1A
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Volatile Organic Compounds (VOCs):					
Benzene	0.004	0.005	mg/l	Annually	Annually
Carbon tetrachloride	0.004	0.005	mg/l	Annually	Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Annually	Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Annually	Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Annually	Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Annually	Annually
cis-1,2-Dichloroethylene	0.05	0.07	mg/l	Annually	Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Annually	Annually
Dichloromethane	0.004	0.005	mg/l	Annually	Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Annually	Annually
Ethylbenzene	0.56	0.7	mg/l	Annually	Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Annually	Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Annually	Annually
Monochlorobenzene	0.08	0.1	mg/l	Annually	Annually
Styrene	0.08	0.1	mg/l	Annually	Annually
Tetrachloroethylene	0.004	0.005	mg/l	Annually	Annually
Toluene	0.8	1.0	mg/l	Annually	Annually
Trihalomethanes (total) ²²	0.08	0.1	mg/l	Annually	Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Annually	Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Annually	Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Annually	Annually
Trichloroethylene	0.004	0.005	mg/l	Annually	Annually
Vinyl Chloride	0.0016	0.002	mg/l	Annually	Annually
Xylenes (Total)	8.0	10.0	mg/l	Annually	Annually

²²Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE IB
RECLAIMED WATER MONITORING TABLE – CLASS A²³

Sampling Point Number	Sampling Point Identification	Latitude	Longitude
1	Discharge point from WRF immediately after the Ultraviolet Disinfection Unit	34° 49' 39" N	111° 48' 44" W

Parameter	DL	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen ²⁶ : Five-sample rolling geometric mean	10.0	mg/l	Monthly	Quarterly
<i>E. coli</i> ²⁷ : Single-sample maximum	15	CFU or MPN ²⁸	Daily ²⁹	Quarterly
<i>E. coli</i> : Four (4) of last seven (7) samples	Non-detect ³⁰	CFU or MPN	Daily	Quarterly
Turbidity ³¹ : Single reading	5.0	NTU ³²	Everyday ³³	Quarterly
Turbidity: 24-hour average	2.0	NTU	Everyday	Quarterly
Enteric Virus ³⁴ : Four (4) of last seven (7) samples	Non-detect	PFU ³⁵	Monthly / Suspended ³⁶	Quarterly

²³ Reclaimed water monitoring is addition to routine discharge monitoring whenever effluent is discharged for reuse in accordance with valid Reclaimed Water Permits.

²⁶ Nitrate N, plus Nitrite N, plus Total Kjeldahl Nitrogen (TKN)

²⁷ *E. coli* monitoring results that meet the specified discharge limits are considered to demonstrate compliance with A.A.C. R18-11-303.

²⁸ CFU = Colony Forming Units per 100 ml: MPN = Most Probable Number per 100 ml. For CFU, a value of <1 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

²⁹ For *E. coli*, “daily” sampling means every day in which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four (4) samples in each calendar week are obtained and analyzed.

³⁰ If at least four (4) of the last seven (7) samples are non-detect, report “yes” in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of the last seven (7) samples have detections of *E. coli*, report “no” in the appropriate space on the SMRF (indicating that the standard has not been met).

³¹ Turbidimeter shall have a signal averaging time not exceeding 120 seconds. Occasional spikes due to back-flushing or instrument malfunction shall not be considered an exceedance. All exceedances must be explained and submitted to the Department with the corresponding quarterly SMRF.

³² Nephelometric Turbidity Units

³³ For the single turbidity reading, “everyday” means the maximum reading during the 24 hour period.

³⁴ Initial monthly enteric virus sampling shall be performed to indicate four (4) out of seven (7) sample results of non-detect.

³⁵ Plaque Forming Units per 40 Liters. A value of <1.1 PFU/40 L shall be considered to be non-detect.

³⁶ Enteric virus sampling shall resume only if two (2) consecutive turbidity limits for the 24-hour average are exceeded. Monthly enteric virus monitoring shall continue until four (4) out of seven (7) consecutive sample results show no detection. During times when enteric virus sampling is suspended, enter “suspended” in the appropriate space on the SMRF.

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE II
GROUNDWATER MONITORING

Sampling Point Number	Sampling Point Identification	Latitude	Longitude
2	Sentinel Well	To be determined	To be determined

Parameter	AL ³⁷	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen ³⁸ :	Not Established ³⁹	mg/l	Monthly	Quarterly
Nitrate-Nitrite as N	Not Established	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established	mg/l	Monthly	Quarterly

³⁷AL = Alert Level

³⁸Total Nitrogen is equal to nitrate as N plus nitrite as N plus TKN.

³⁹Not Established = Monitoring required, but no limits have been established at this time. After 12 monthly samples, the permittee shall submit a request for a permit amendment to establish Alert Levels as required by Section 3, Compliance Schedule. Alert Levels shall be protective of surface water standards.

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE III
FACILITY INSPECTION (Operational Monitoring)

Pollution Control Structures/Parameter	Performance Levels	Inspection Frequency
Pump Integrity	Good working condition	Weekly
Treatment Plant Components	Good working condition	Weekly
Seepage from effluent disposal system	No visible seepage in Carroll Canyon Wash adjacent to Effluent Disposal Field #1 due to discharge	Weekly
Seepage from effluent disposal system	No visible seepage above ground surface at Effluent Disposal Fields	Weekly
Disposal field components	Operating as designed	Weekly

5.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

1. APP Application dated: January 31, 2005
Design Documents: Wastewater Treatment Plan Design Report and Submittal for Bella Terra WWTP prepared by Santec Corporation and Curtis Engineering, sealed by Evan H. Curtis, P.E., January 26, 2005.

Design Reports for Bella Terra on Oak Creek prepared by Shepard-Wesnitzer, Inc., sealed by Arthur H. Beckwith, P.E., January 6, 2005.

Bella Terra on Oak Creek Construction Plans, Grading, Drainage, and Utilities, prepared by Shepard-Wesnitzer, Inc., sealed by Arthur Beckwith, P.E., January 7, 2005. Drawing set of 26 pages.

Response to Administrative Completeness Review for Bella Terra WWTP prepared by Santec Corporation and Curtis Engineering, sealed by Evan H. Curtis, P.E., April 12, 2005.

Wastewater Treatment Plant Revised Submittal for Bella Terra WWTP, prepared by Santec Corporation, sealed by Evan H. Curtis, P.E., September 12, 2006.

Letter dated September 26, 2006 from Evan H. Curtis, Curtis Engineering for Santec Corporation, to Maribeth Greenslade, ADEQ, with attachments, sealed by Evan H. Curtis, P.E., September 26, 2006.
2. Final Hydrologist Report dated: March 20, 2006; revised August 14, 2006
3. Final Engineering Report dated: October 21, 2005
4. Public Notice dated: May 5, 2006
September 29, 2006
5. Public Hearing date: July 20, 2006
November 1, 2006
6. Responsiveness Summary, dated: February 1, 2007

6.0 NOTIFICATION PROVISIONS

6.1 Annual Registration Fees

The permittee is notified of the obligation to pay an Annual Registration Fee to ADEQ. The Annual Registration Fee is based upon the amount of daily influent or discharge of pollutants in gallons per day as established by A.R.S. § 49-242(D).

6.2 Duty to Comply [A.R.S. §§ 49-221 through 263]

The permittee is notified of the obligation to comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2 and 3 of the Arizona Revised Statutes, Title 18, Chapter 9, Articles 1 through 4, and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit amendment, suspension, or revocation.

6.3 Duty to Provide Information [A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]

The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information which the Director may request to determine whether cause exists for amending or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

6.4 Compliance with Aquifer Water Quality Standards [A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]

The permittee shall not cause or contribute to a violation of an aquifer water quality standard at the applicable point of compliance for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an aquifer water quality standard for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.

6.5 Technical and Financial Capability

[A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]

The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial capability in the permit application, pursuant to A.A.C. R18-9-A203(D), shall be in effect prior to any discharge authorized by this permit and shall remain in effect for the duration of the permit.

6.6 Reporting of Bankruptcy or Environmental Enforcement [A.A.C. R18-9-A207(C)]

The permittee shall notify the Director within five days after the occurrence of any one of the following:

1. The filing of bankruptcy by the permittee.
2. The entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

6.7 Monitoring and Records [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A206]

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit, with the applicable water quality standards established pursuant to A.R.S. §§49-221 and 49-223 and §§ 49-241 through 49-252.

6.8 Inspection and Entry [A.R.S. §§ 49-203(B) and 49-243(K)(8)]

In accordance with A.R.S. §§ 41-1009 and 49-203(B), the permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit.

6.9 Duty to Modify [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A211]

The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices authorized by this permit.

6.10 Permit Action: Amendment, Transfer, Suspension & Revocation

[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

This permit may be amended, transferred, renewed, or revoked for cause, under the rules of the Department.

The permittee shall notify the Groundwater Section in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.

7.0 ADDITIONAL PERMIT CONDITIONS**7.1 Other Information [A.R.S. § 49-243(K)(8)]**

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information.

7.2 Severability

[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition.

7.3 Permit Transfer

This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer shall be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).